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IBM INDUSTRIAL
PRODUCTS

**FOUR TRANSISTORS (FTX-3A)
MODULE P/N 841533**

361433

Functional Description

The Four Transistor, FTX-3A, module consists of four single transistors with the individual base, emitter and collector leads terminated at specific pins. The individual transistors offer the circuit designer uniformity of circuit packaging as well as flexibility in application with other SLT modules. The FTX-3A is the fastest of the three medium speed transistor modules.

Schematic



Terminal Configuration



Mechanical
Chamber
Right Side

TOP VIEW

Maximum Ratings

$I_E = 50$ Milliamps

FTX-3A Test Conditions

INDIVIDUAL DEVICE PARAMETER TESTS					
TESTS	TEST CONDITIONS	T _a °C	LIMITS		
			MIN	MAX	UNITS
V_{CEO}	$I_C = 5\text{ma}$, $I_B = 0$	25	8		V
V_{CBO}	$I_C = 10\text{ }\mu\text{a}$	25	12		V
V_{EBO}	$I_E = 10\text{ }\mu\text{a}$	25	2.5		V
I_{CEX}	$V_{CE} = 5\text{V}$, $V_{BE} = .35\text{V}$	75		100	μa
I_{BEX}	$V_{CE} = 9\text{V}$, $V_{BE} = -3\text{V}$	75		10	μa
H_{FE}	$I_E = 10.0\text{ma}$, $V_{CB} = 0\text{V}$	25	25		
H_{FE}	$I_E = 30.0\text{ma}$, $V_{CB} = 0\text{V}$	25	22		
τ_s	See Fig. 1	25		35	ns
/GAIN/	$f = 100\text{mhz}$, $I_E = 10\text{ma}$, $R_L = 50\Omega$, $V_{CB} = +3.0\text{V}$	25	1.5		
C_{ib}	$V_{EB} = 0.0\text{V}$, $f = 1 \pm .5\text{ mhz}$	25		6.5	pf
C_{ab}	$V_{CB} = 0.0\text{V}$, $f = 1 \pm .5\text{ mhz}$	25		6.5	pf
V_{CE}	$I_C = 1.0\text{ma}$, $I_B = .05\text{ma}$	25		.30	V
V_{CE}	$I_C = 10.0\text{ma}$, $I_B = .5\text{ma}$	25		.30	V
V_{CE}	$I_C = 50.0\text{ma}$, $I_B = 2.5\text{ma}$	25		.50	V
V_{BE}	$I_C = 1.0\text{ma}$, $I_B = .05\text{ma}$	25	.60	.75	V
V_{BE}	$I_C = 10.0\text{ma}$, $I_B = .5\text{ma}$	25	.70	.85	V
V_{BE}	$I_C = 50.0\text{ma}$, $I_B = 2.5\text{ma}$	25	.80	1.10	V
β_R	$V_{EC} = 1.5\text{V}$, $I_B = 2.3\text{ma}$	75		1.0	

τ_s Test Circuit

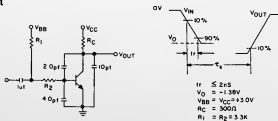


FIGURE 1